Thor系列

Quick Start Guide

快速启动指南

中文 P20

⚠ WARNING 注意事项	1. Do not remove the wrapping around the nozzle. 2. Hot! Avoid touching the heating nozzle in operation. 3. Moving parts in printer may cause injury. Do not wear gloves or other sources of entanglement in operation. 1.切勿去除包裹在喷嘴处的耐高温材料。 2.高温危险！打印机喷嘴在工作时会被加热，操作时请避免接触！ 3.可动部件可能会造成卷入挤压和切割伤害。操作机器时请不要配带手套或缠绕物。

| User Guide Slicing Software 说明书/切片软件	The latest version of User Guide and slicing software can be found in the memory card, or contacting the equipment seller. 最新版本说明书和切片软件可以在随机附带的存储卡中找到，或联系设备销售商。

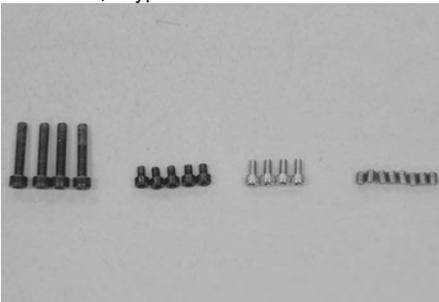1. Put the printer box at a clean and flat place.

2. Take out the tool box.

3. Check parts of the tool box: tool kit, memory card, screw bag, filament, ribbons, filament fixed seat, filament support, T-type fixed seat of Z-axis, T-type fixed seat of Z-axis+Sensor.
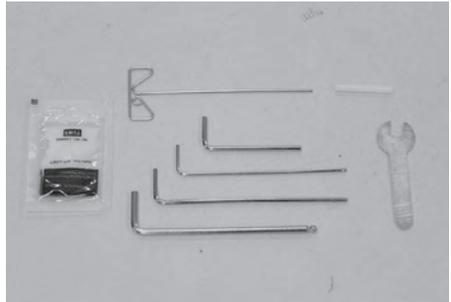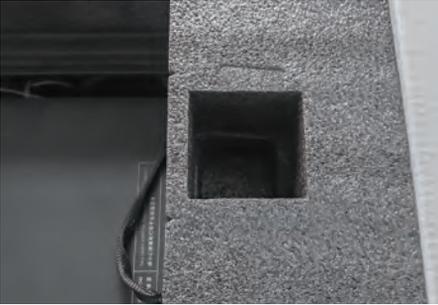

4. There is an unclogging pin tool, grease, Allen wrench, stamping wrench, PTFE tube inside the tool kit.
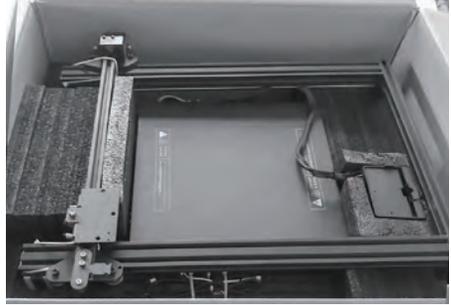

5. There are 4 screws of M5*25, 5 screws of M4*6, 4 screws of M4*8 and 8 set screws of M4*5 inside the screw bag.
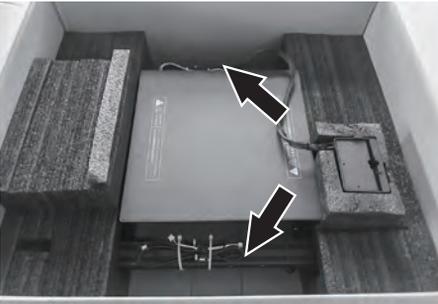

6. Take out all the foam blocks in the middle and filament below the foam.

7. Take out the filament shaft.

8. Remove foam blocks on both sides, and take out upper holder of the printer.

9. As is shown, hold the position that arrow points, and lift the printer base out of the carton.

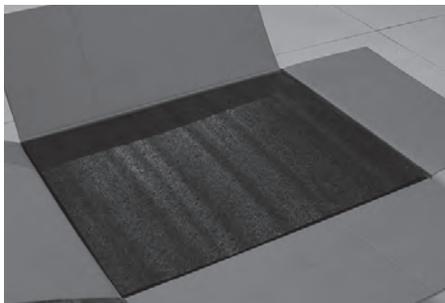10. Remove the foam block on one side that has no extruder.

11. Remove the extruder and put it on the build plate. Be careful not to scratch the nozzle.

12. Remove the foam blocks left, unboxing completed. Suggest to keep packing materials well for further storage or transportation.
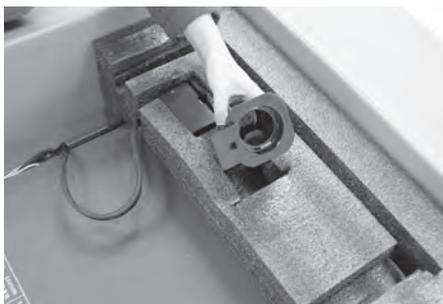
1. Put the printer box at a clean and flat place.

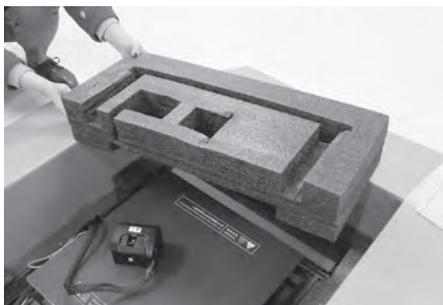
2. Take out the tool box and filament.

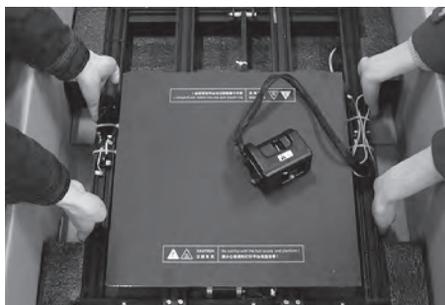3. Take out the upper holder of the printer and put them at a clean place.

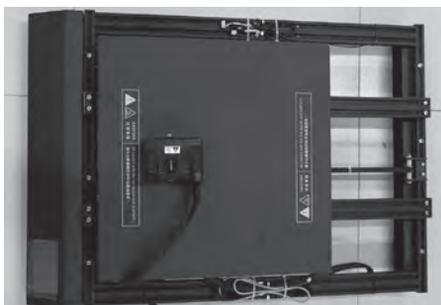

4. Take out the filament shaft.

5. Take out the extruder and put it on the build plate.Be careful not to scratch the nozzle.
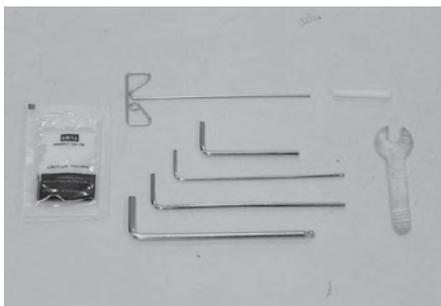

6. Take out the foam.

7. Take the build plate base out of the carton. (Two-person operation is recommended)

8. Put build plate on the table and check all the parts of the printer,no damage.

9. Check parts of the tool box: tool kit, memory card, screw bag, filament, ribbons, filament fixed seat, filament support, T-type fixed seat of Z-axis, T-type fixed seat of Z-axis+Sensor.

10. Take out the unclogging pin tool, grease, Allen wrench, stamping wrench, PTFE tube inside the tool kit.
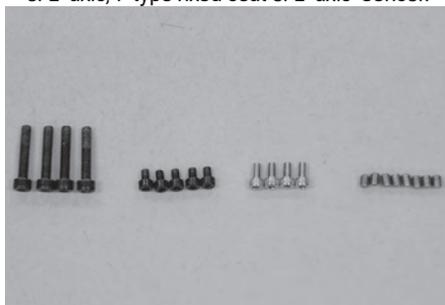
11. There are 4 screws of M5*25, 5 screws of M4*6, 4 screws of M4*8 and 8 set screws of M4*5 inside the screw bag.

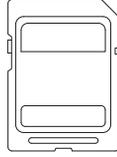Unboxing of profile machine completed. Suggest to keep packing materials well for further storage or transportation.

Kit Contents

3D Printer	Filament	SD Card	Filament Support
Quick Start Guide	Power Cable	Wrench	Alen Wrench
Unclogging Pin Tool	PTFE Tube	Grease	Ribbon
Filament Fixed Seat	Screw Bag		
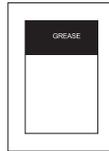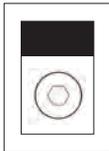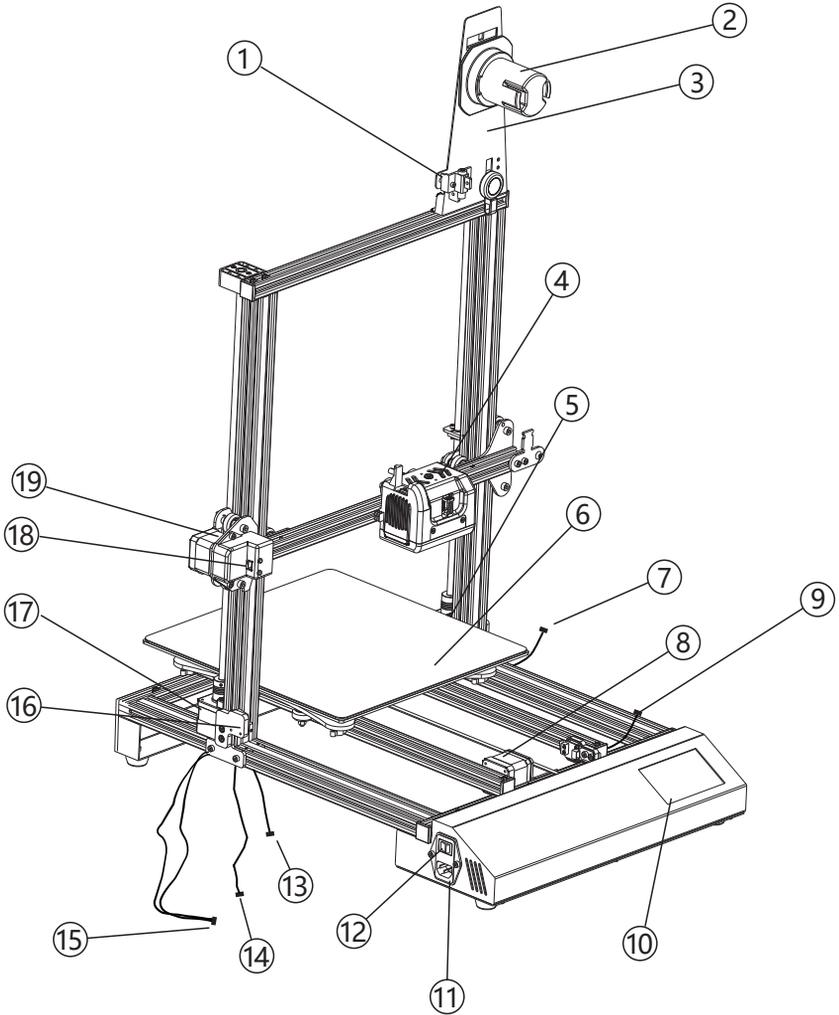
1. Filament detector   2. Filament support   3. Filament Fixed Seat   4. Extruder

5. Right Z-axis motor   6. Build plate   7. Right Z-axis motor cable

8. Y-axis motor and Y-axis sensor   9. Leveling sensor cable   10. Touch screen

11. Power cable interface   12. Power switch   13. Left Z-axis sensor cable

14. Left Z-axis motor cable   15. Left Z-axis motor cable and Left X-axis sensor cable

16. Left Z-axis sensor   17. Left Z-axis motor   18. X-axis sensor   19. X-axis motor
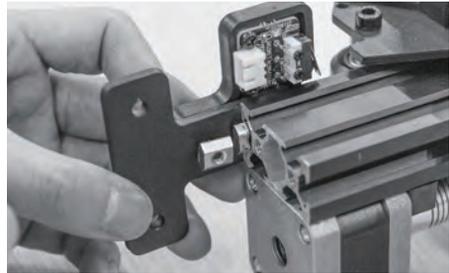
1. As is shown, take out the upper holder on the table and remove protective foam.
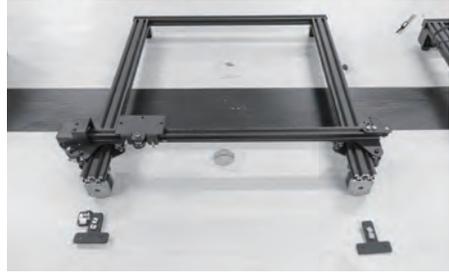
2. As is shown, take out two T-type fixed seats, and put one of the T-type fixed seats with sensor on the left side.


3. Slightly unfasten the screw on the T-type fixed seat, thus the T-type screws at the back of the fixed seat is movable.
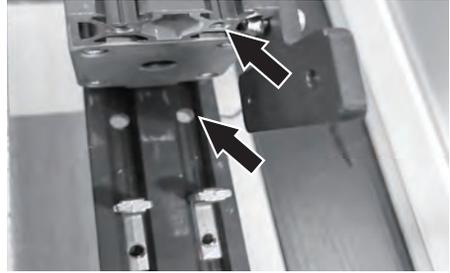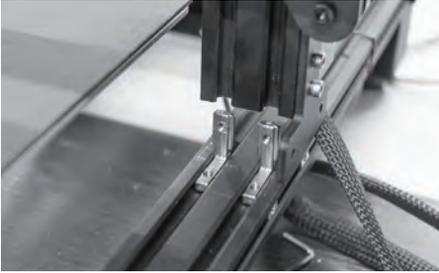

4. As is shown, adjust the direction of T-type screws, and insert the T-type fixed seat with sensor into the left side of the upper holder.


5. Slightly fasten the screw on the T-type fixed seat that has been unfastened before. But do not fasten with too much force.
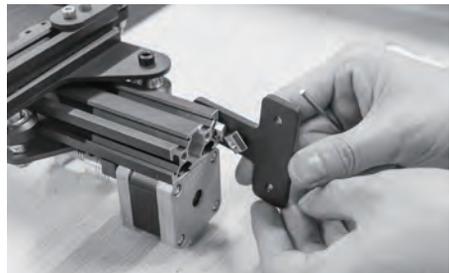
6. Insert the T-type fixed seat into the right side of the upper holder in the same way.

7. As is shown, the upper holder should be fixed by L–type block and the printer. Adjust L–type block positions on both sides to align the screw hole that the arrow points.
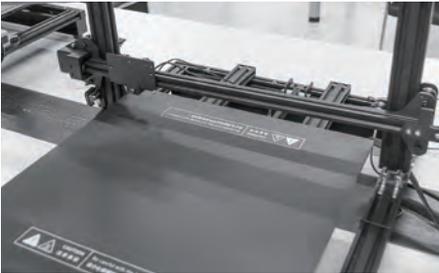
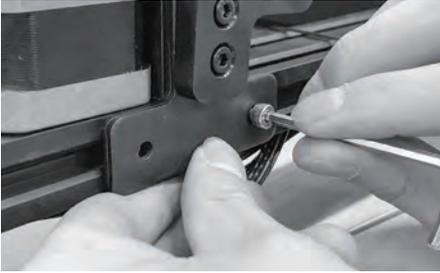8. Insert upper holder into L–type block on both sides.

9. Use 4 M5*25 screws to tighten the bottom, two on each side.

10. Use 8 M4*5 set screws to fix L–type block, four on each side.

11. As is shown, adjust 4 T–type screws (two on each side) to screws holes of T–type fasteners for subsequent fixing of T–type fixed seats on both sides. (Find T–type screws in the sliding slot on both sides).
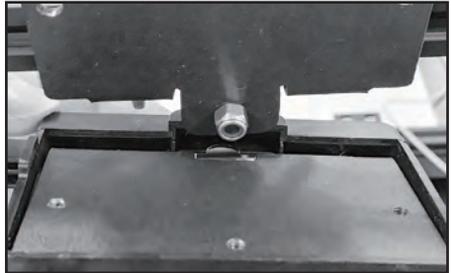
12. Use 4 M4*8 screws to fix T–type fixed seats on both sides, two on each side.

13. Tighten screws on the T–type fixed seats.
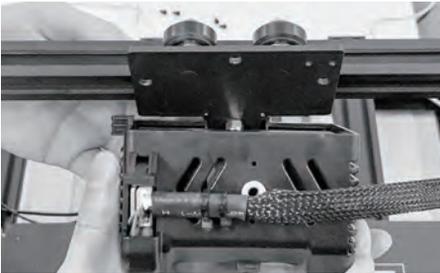
14. As is shown, clip the square clip into the groove at the bottom of extruder base, thus making the back of extruder be close to extruder fixed seat.

15. Use 3 M4*6 screws to fix extruder.

16. Take out filament fixed seat, and get ready for installing it on the top of the upper holder. Attention please, make sure the side of spool holder with the filament detector switch is facing the front of the printer.
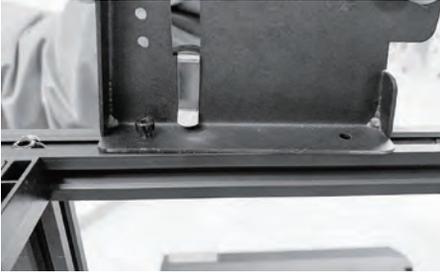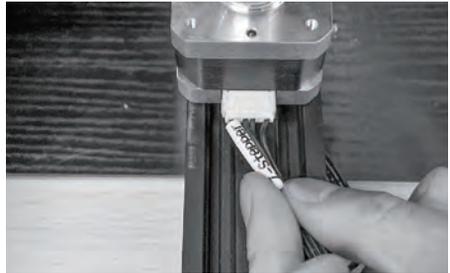
17. Use 2 M4*8 screws to fix filament fixed seat in the back.

18. Clip extruder wiring hardness into clips on the filament fixed seats.

19. Find [Z-axis motor cable] on both sides marked with [Z-Steeper], insert them into Z-axis motor on both sides. Attention, the side of the plug with 2 protuberances should upwards.
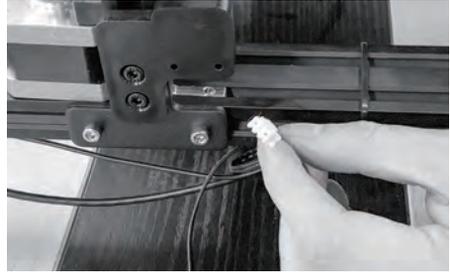

20. Find [X-axis motor cable] marked with [X-Steeper], insert it into X-axis motor. Attention: X-axis motor cable socket is under the motor, the side of the plug with 2 protuberances should upwards.
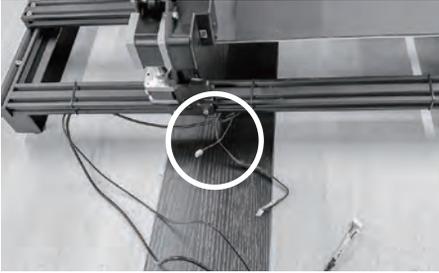
21. As is shown, find a shorter [Z-axis sensor cable] on the left of the printer.

22. Insert Z-axis sensor cable into Z-axis sensor, and sensor is inside the left T-type fixed seat. Attention: The side of the plug with two protuberances should be oriented to the right of the printer.

23. As is shown, find [X-axis sensor cable] marked with [X-Max], insert it into the X-axis sensor socket at the back of X-axis motor. Attention: The side of the plug with two protuberances should be oriented to the back of the printer.
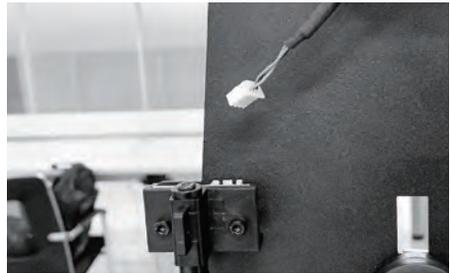
24. Find a longer [filament detector sensor cable] on the right of the printer, insert it into the filament detector of the filament fixed seat.
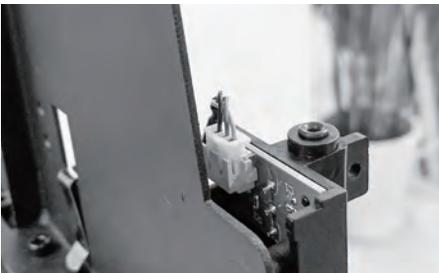
25. Attention: The side of the plug with two protuberances should be oriented to the back of the printer.
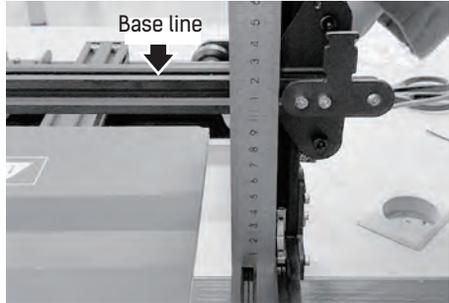

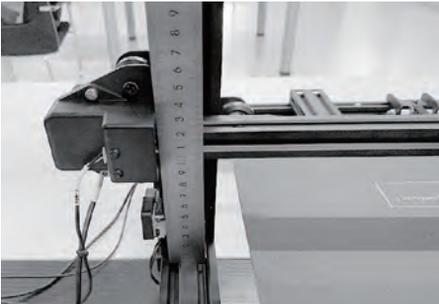26. As is shown, fix [Filament detector sensor cable] with ribbons, hardware installation completed.
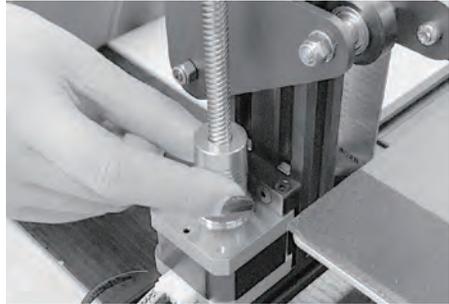
11

1. Tighten the four nuts of the build plate counterclockwise

Base line

2. Measure the height from the left side of the X-axis to the bottom section with a ruler. Base the height on the left, the height shall not be lower than 120mm.

3. Then measure the height from the right side of the X-axis to the bottom section. Both sides must be of the same height.

4. Manually rotate the coupling under the screw rod, adjust it and make sure both sides be at the same height.

5. Insert power cable into supply socket on the left of the printer.

6. Insert the power plug into supply socket, and open the power switch.

Let us know the function of leveling nuts before leveling

How to use leveling nuts

There are four leveling nuts under the build plate of Thor series printer, adjust the distance between build plate and nozzle by rotating leveling nuts.
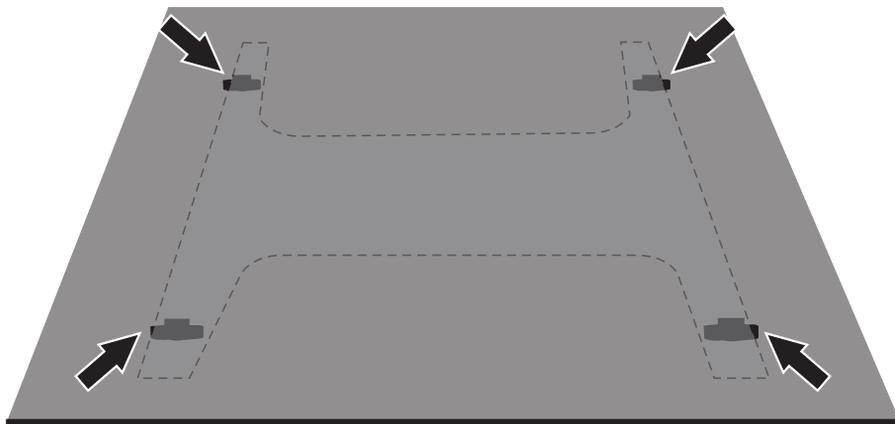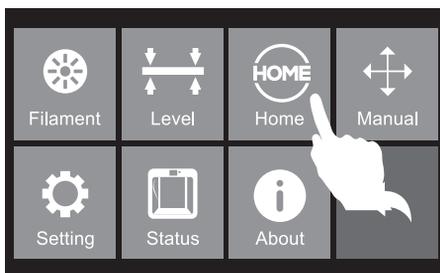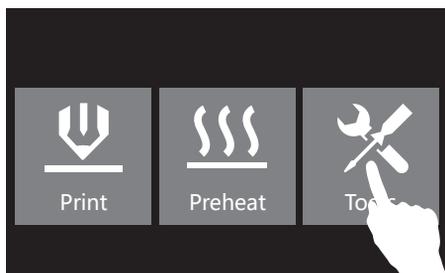

Rotate nut clockwise

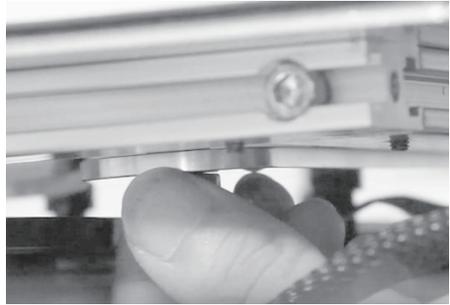Raise the build plate to reduce the distance between nozzle and the build plate.

Rotate nut anticlockwise

Lower the build plate to increase the distance between nozzle and the build plate.

Print Preheat Tools

Filament Level HOME Home Manual

Setting Status About

7. Tap [Tools] on the touch screen, then tap [Home], the printer starts to do homing.
   Tap [Yes] when zero returning finished and go back.

8. Put a A4 paper between nozzle and the build plate. Adjust the nut with one hand and feel the friction by sliding A4 paper back and forth with the other hand.

  [1]. If the paper slides through easily, the nozzle and the build plate are too far apart.Rotate the nut clockwise to increase the distance between them.

  [2]. If the paper cannot slide through, rotate the nut anticlockwise to decrease the distance between them.

  [3]. The distance between nozzle and the build plate is suitable when feeling sight friction when sliding the paper. Move the extruder to the top of the second leveling point, and do leveling in the same way. And so on, when finishing four leveling points, leveling completed.
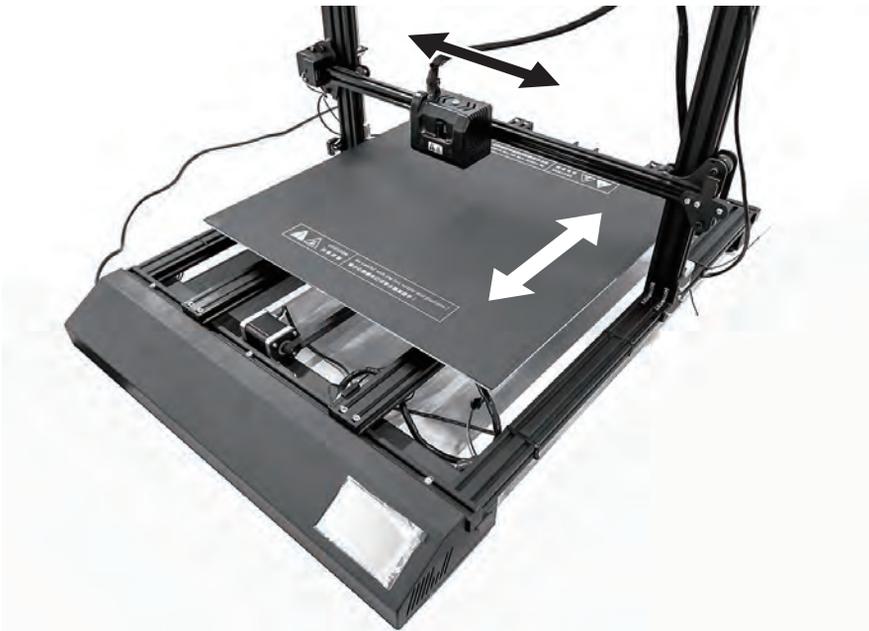
The extruder of Thor series printer can be moved left and right, the build plate can be moved back and forth. Please slide the extruder and the build plate manually to adjust the extruder on the top of the leveling nut.
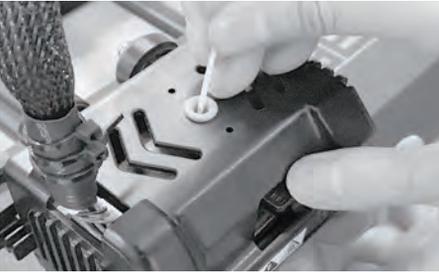
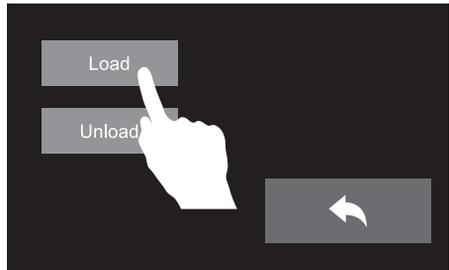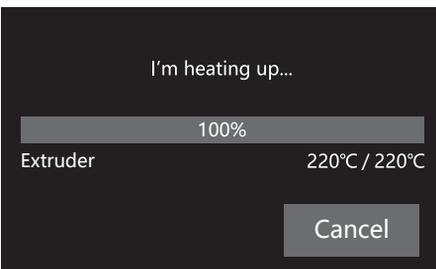1. Press the spring presser, insert filament vertically into the extruder bottom from filament intake.

2. Tap [Tools]

Print   Preheat   Tools

3. Tap [Filament].

Filament   Level   Home   Manual

Setting   Status   About

4. Tap [Load]

Load

Unload

I'm heating up...

100%

Extruder   220℃ / 220℃

Cancel
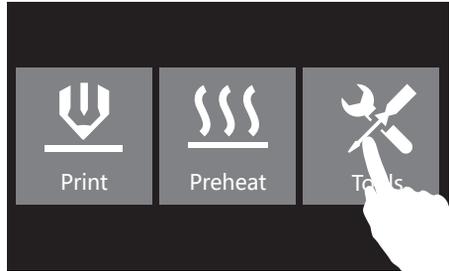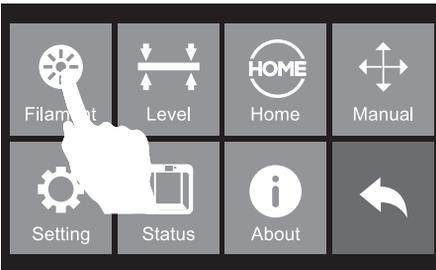
5. When the extruder preheated to the target temperature, loading starts until the extruder provides a steady flow of filament. Then go back to the home page.

Attention: If the extruder cannot load filament for a long time,please check if inserting filament into the extruder bottom correctly.

Suggestions

1. Ensure that the build plate has been leveled before printing.
2. Ensure that the filament has been loaded in an appropriate approach.
3. Load the filament for a while to extrude all the melted filament you printed last time out of the extruder.
4. Please clean nozzle before printing.
5. Do not leave the printer unattended during operation.

1. Insert memory card into equipment card slot.
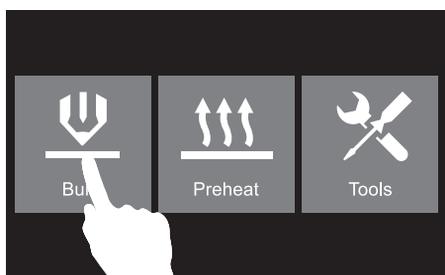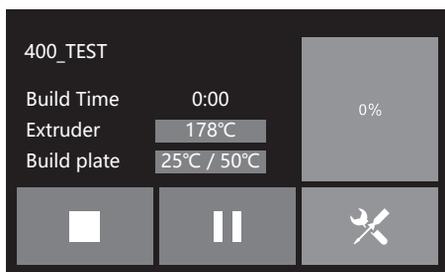

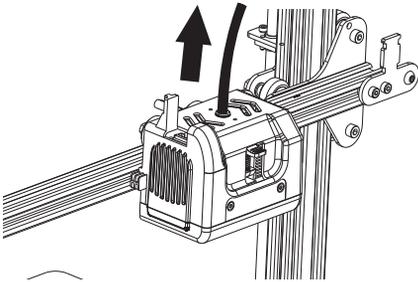2. Tap [Build] in the main interface.
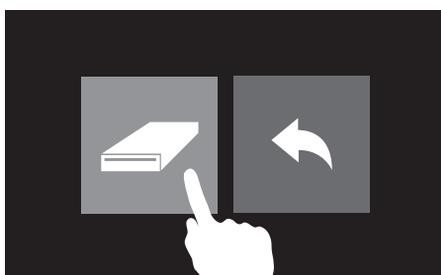
3. Tap memory card.
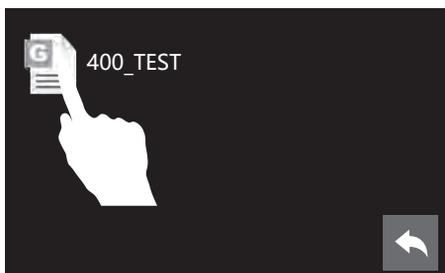
4. Select the stl. needs printing.

5. Tap [Build].

400_TEST

Build Time	0:00
Extruder	178℃
Build plate	25℃ / 50℃

0%
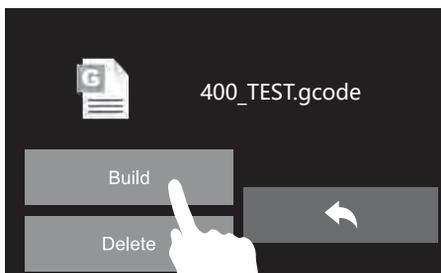
6. The extruder start s to heat, print starts when heating completed.

Unloading Filament

For the change filament in the daily use, please operate follow the steps below:

1. Plug filament guide tube out of the extruder filament intake, make sure that filament exposed 10cm for easily being pulled out.
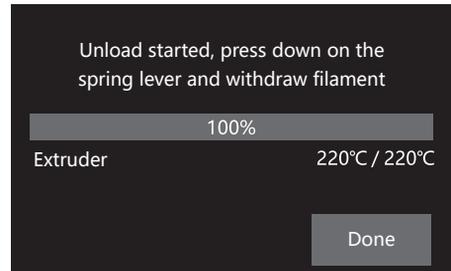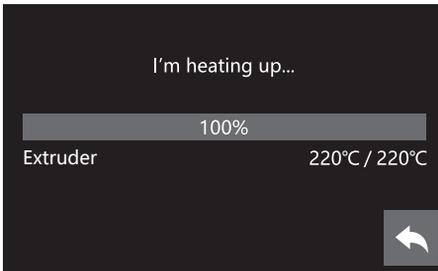
Build **Preheat** **Tools**

2. Tap [Tools] on the touch screen.

Filament Level Home Manual

Setting Status About

3. Tap [Filament].

Load

Unload

4. Tap [Unload].

I'm heating up...

100%

Extruder   220℃ / 220℃

Unload started, press down on the spring lever and withdraw filament

100%

Extruder   220℃ / 220℃

Done
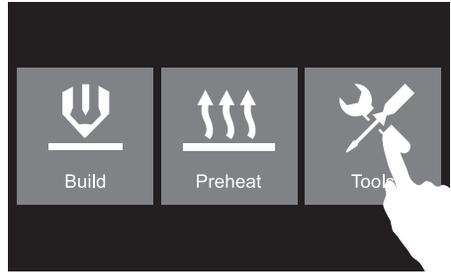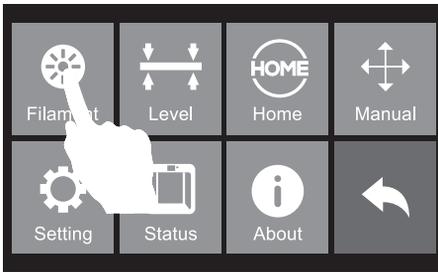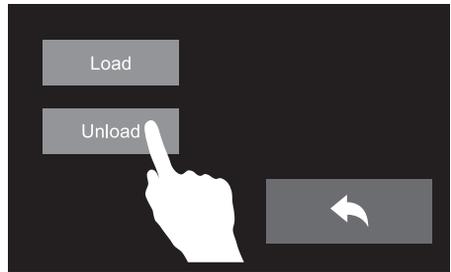
Push filament down through for 3 seconds
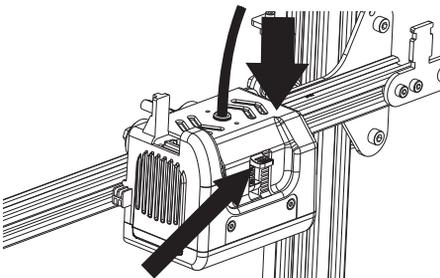
5. The extruder starts to heat. When extruder heating to target temperature, press down the spring presser, and press down filament for 3 seconds in the meanwhile until you see filament come out of the nozzle, then pull it out quickly.

Press here

Leveling Accessories Assembly

Leveling accessories are not belong to the Standard accessories.
Please contact device distributors to purchase if necessary.

1. Take out accessories.

2. As is shown, unfasten a nut and a spacer on the top of the sensor.

3. Pass the sensor through the fixed seat.

4. Tighten the spacer and the nut back.

5. Put fixed seat on the right side of the extruder and fix it with 2 screws.

6. Connect sensor plug with sensor cable at the back of printer LCD.

7. Clip sensor cable into pulley clip on the top of filament fixed seat for sensor cable is too long.

Sensor

Height difference
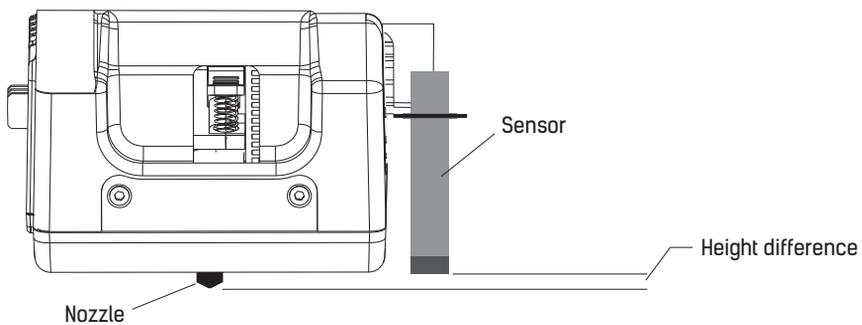
Nozzle

8. After installation completed, please compare the height between the nozzle and the bottom of the sensor. The sensor should be 1–2 mm higher than the nozzle. You can adjust the sensor height by adjusting nuts on the sensor.

1. 选择平整干净的地方放置打印机包装箱，
   打开纸箱。

2. 取出工具盒。

3. 检查工具盒中的配件：工具袋、存储卡、螺
   丝袋、耗材、扎带、丝盘固定座、丝盘轴、
   Z轴T型固定座、Z轴T型固定座+传感器。
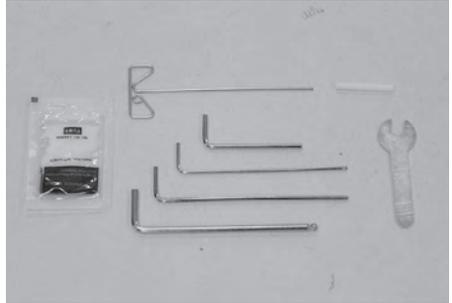
4. 工具袋中有通针、润滑油、内六角扳手
   开口扳手、聚四氟乙烯管。
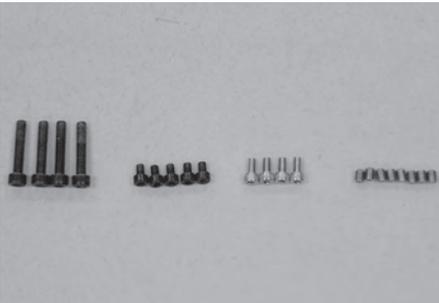
5. 螺丝袋中的螺丝从左至右分别是：M5*25
   螺丝4颗、M4*6螺丝5颗、M4*8螺丝4颗、
   M4*5紧定螺丝8颗。

6. 取出中间所有的泡沫块以及泡沫下方的耗材。

7. 取出丝盘轴。

8. 移除左右两侧的泡沫块，取出下方的打印机上支架。
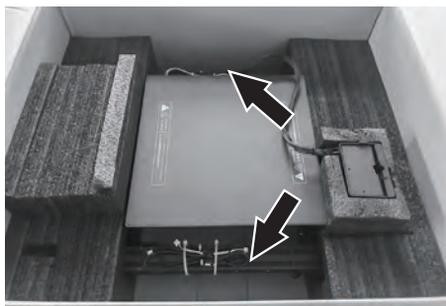
9. 如图所示，抓住箭头所指的位置，将打印机底座抬出纸箱。

10. 移除未放置喷头一侧的泡沫块。

11. 取出喷头，放在打印平台上，注意不要划伤喷嘴。

12. 移除剩下的泡沫块，开箱完成。建议妥善保存这些包装材料，以便于后续的存放或运输。
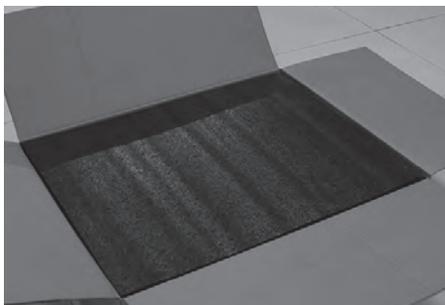
1. 选择平整干净的地方放置打印机包装箱，打开纸箱。

2. 取出工具盒、耗材。

3. 取出设备上架，摆放在干净的地方。
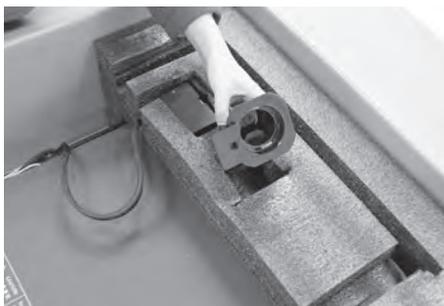
4. 取出丝盘轴。

5. 取出喷头，放在打印平台上，注意不要划伤喷嘴。
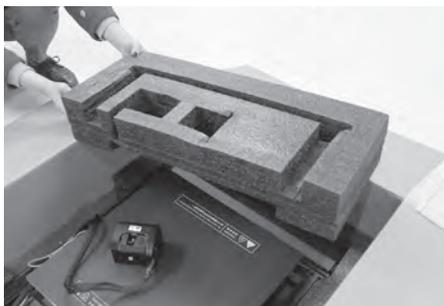
6. 取出泡沫。
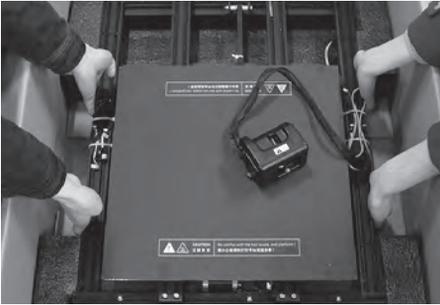
7. 从纸箱中取出打印平台底座。（建议两人操作）
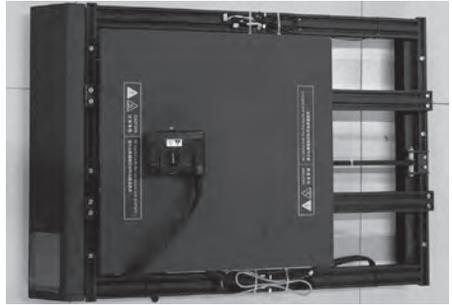
8. 将打印平台底座平放置桌面，并检查打印机各个部件完整，无损伤。

9. 检查工具盒中的配件：工具袋、存储卡、螺丝袋、耗材、扎带、丝盘固定座、丝盘轴、Z轴T型固定座、Z轴T型固定座+传感器。
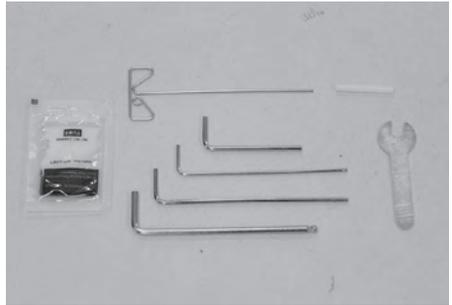
10. 取出工具袋中有通针、润滑油、内六角扳手开口扳手、聚四氟乙烯管。
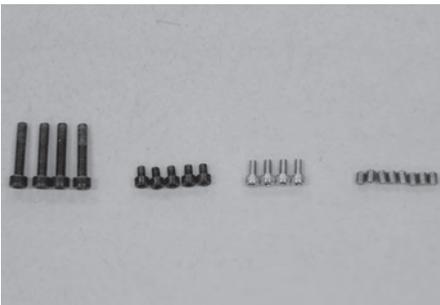
型材机开箱完成。建议妥善保存这些包装材料，以便于后续的存放或运输。

11. 螺丝袋中的螺丝从左至右分别是：M5*25螺丝4颗、M4*6螺丝5颗、M4*8螺丝4颗、M4*5紧定螺丝8颗。

装箱物品
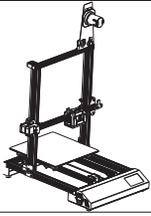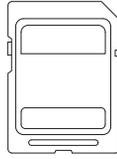
3D打印机	**3D打印耗材**	**存储卡**	**丝盘轴**
快速启动指南	**电源线**	**冲压扳手**	**内六角扳手**
通 针	**聚四氟管**	**润滑脂**	**扎 带**
丝盘固定座	**螺丝袋**		
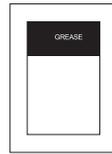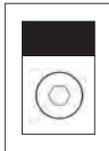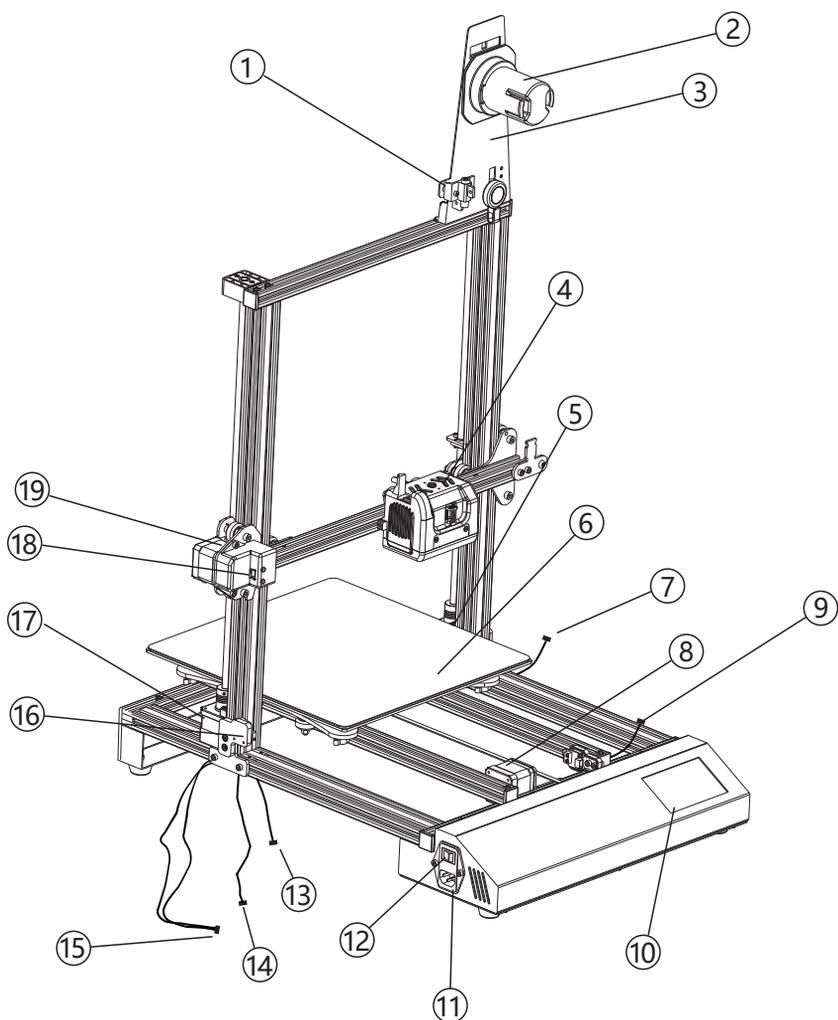
1. 丝料检测器　　2. 耗材支架　　3. 料盘架　　4. 喷 头　　5. 右侧Z轴电机

6. 打印平台　　7. 右侧Z轴电机线　　8. Y轴电机与Y轴传感器　　9. 调平传感器线

10. 触摸屏　　11. 电源线接口　　12. 电源开关　　13. 左侧Z轴传感器线

14. 左侧Z轴电机线　　15. 左侧Z轴电机线与左侧X轴传感器线

16. 左侧Z轴传感器　　17. 左侧Z轴电机　　18. X轴传感器　　19. X轴电机

1. 如图所示，取出打印机上支架放于桌面，去除保护泡棉。
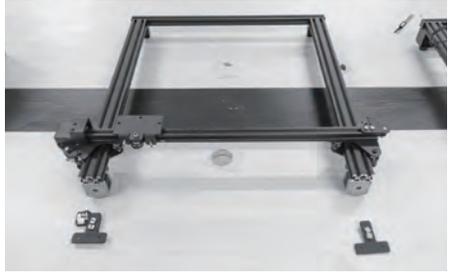
2. 如图所示，取出两个T型固定座，带有传感器的放在左边。

3. 将T型固定座上的螺丝略微旋松，使得固定座背后的T型螺母可以活动。
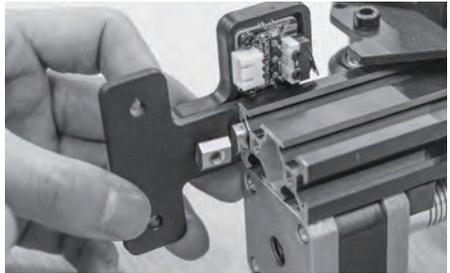
4. 如图所示，调整T型螺母的方向，将带有传感器的T型固定座插入上支架左侧。

5. 略微旋紧T型固定座上之前旋松的螺丝，请注意，在这一步骤时请不要将这两颗螺丝拧紧。
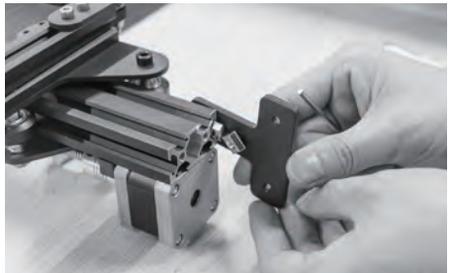
6. 用同样的方法将右侧的T型固定座装入右侧上支架。
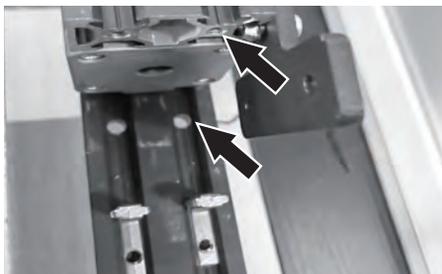
7. 上支架需要通过图中所示的 L 型内角件与打印机固定。如图所示，调整左右两侧 L 型内角件的位置，使图中箭头所示的螺丝孔对齐。
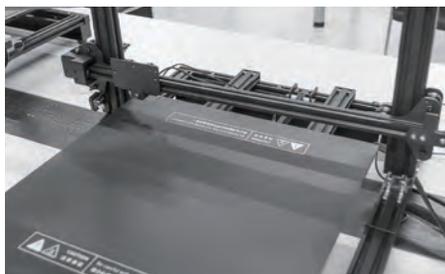
8. 让左右两侧 L 型内角件插入上支架。

9. 用M5*25螺丝从底部拧紧，左右两侧各两颗，共4颗。

10. 用M4*5紧定螺丝固定L型内角件，左右两侧各4颗，共8颗。

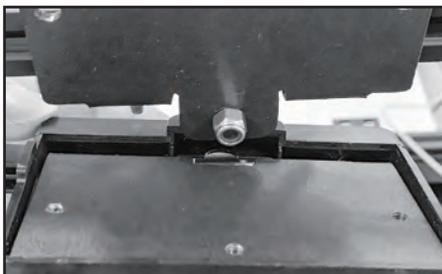11. 如图所示，为固定两侧的T型固定座，在左右两侧滑槽内找到T型螺母（左右各两颗）。将其调整到T型紧固件的两个螺丝孔位。
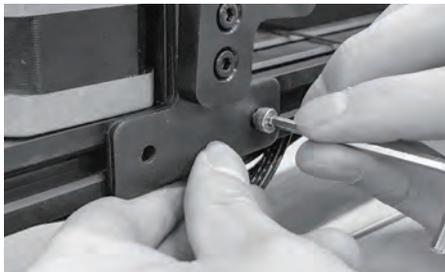
12. 用M4*8的螺丝固定左右两侧的 T 型固定座，左右两侧各两颗，共4颗。

13. 拧紧 T 型固定座上的螺丝。
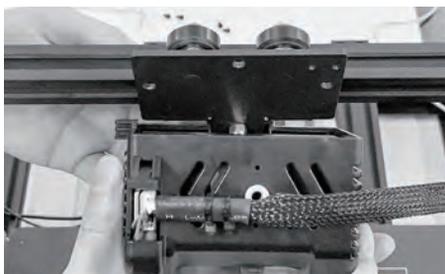
14. 如图所示，将喷头固定座下方的方形卡扣卡入喷头底部凹槽，使喷头背部贴紧喷头固定座。

15. 用三颗M4*6的螺丝固定喷头。
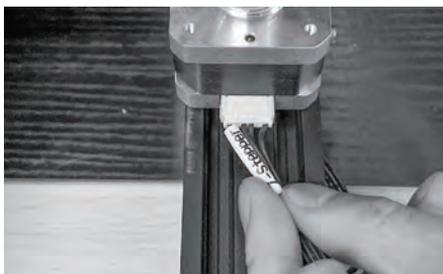
16. 取出丝盘固定座，准备安装在上支架顶部。请注意，安装料盘架请确保装有丝料检测开关的一侧朝向打印机正面。
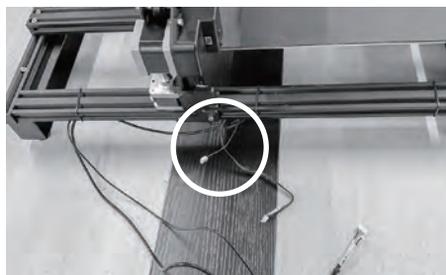
17. 用两颗M4*6螺丝从背后固定丝盘固定座。

18. 将喷头线束卡入丝盘固定座上滑轮前的卡扣。

19. 在打印机左右两侧找到标有[Z-Steeper]字样的[Z轴电机线]。将他们分别插入左右两侧的Z轴电机。注意，在插入电机线时，插头上有两条突起的一面应当朝上。

20. 在打印机左侧找到标有[X-Steeper]字样的[X轴电机线]。将其插入X轴电机。注意，X轴电机线的插口在电机下方。在插入电机线时，插头上有两条突起的一面应当朝向打印机正面。
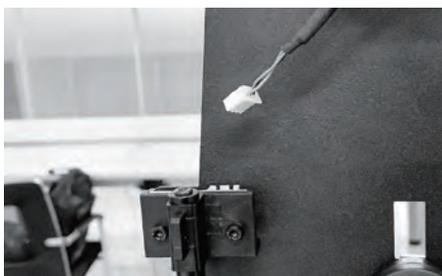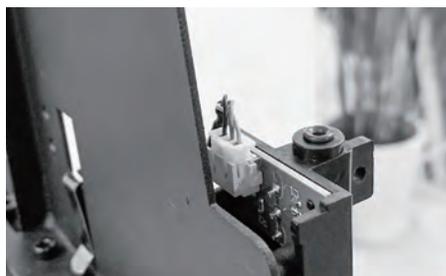
21. 如图所示，在打印机左侧找到一根较短的[Z轴传感器线]。

22. 将Z轴传感器线插入Z轴传感器，传感器位于左侧T型固定座内侧。注意，插头上有两条突起的一面应当朝向打印机右侧。

23. 如图所示，找到标有[X-Max]的[X轴传感器线]。将其插入X轴电机背后的X轴传感器插口。注意，插头上带有两条突起的一边朝向打印机后方。

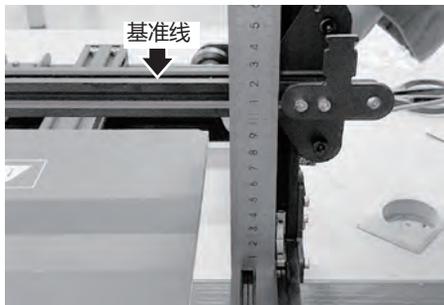24. 在打印机右侧找到一根较长的[丝料检测传感器线]。将其插入丝盘固定座上的丝料检测器。

25. 注意在插入[丝料检测传感器线]时，插头上有两条突起的一边朝向打印机后方。

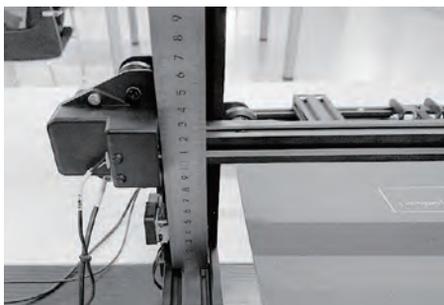

26. 如图所示，用扎带固定[丝料检测传感器线]。硬件安装完成。
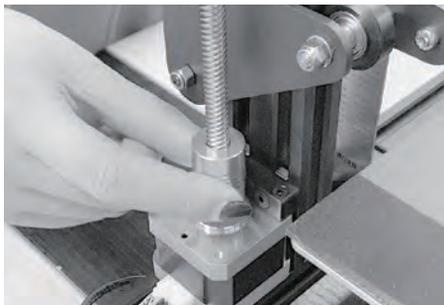
1. 将打印平台底部四颗螺帽逆时针拧紧。

基准线

2. 使用一把尺子测量x轴左侧至下部型材的高度；以左侧为基准高度，其高度不得低于120mm;

3. 再测量X轴右侧至下部型材的高度，两侧高度必须保持一致。

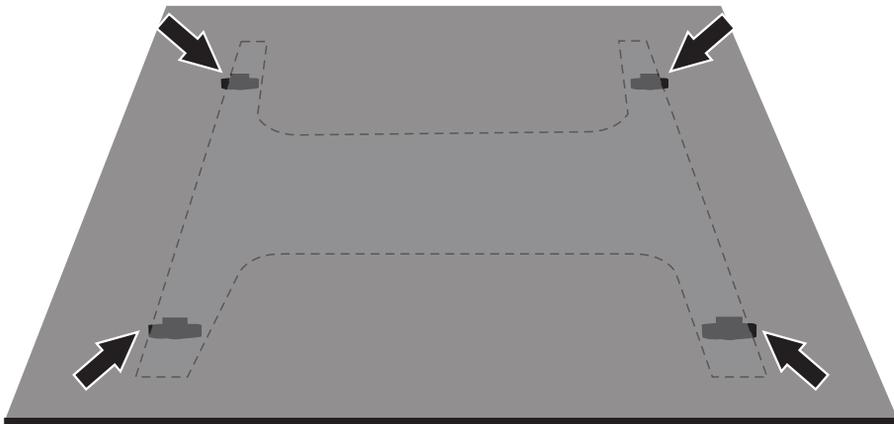4. 手动旋转丝杆下方的联轴器，将其也调整为X轴左右高度一致。

5. 电源线插入打印机左侧电源开关下方电源连接口。

6. 将电源插头插入电源插座中，再打开电源开关。

在调平开始前，让我们先了解一下调平螺母的作用。

如何通过调平螺母调节打印平台

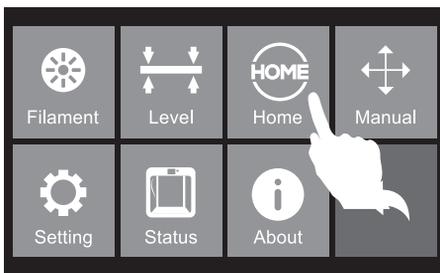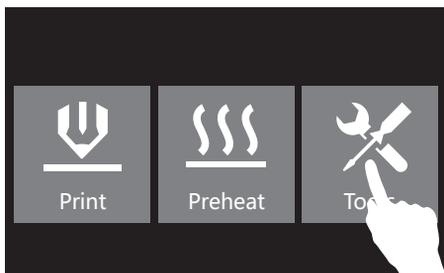Thor系列打印机在打印平台下方共有4颗调平螺母，通过旋转调平螺母来调节打印平台与喷嘴之间的距离。

顺时针旋转螺母，打印平台上升
打印平台上升，喷嘴与平台之间的间距变小

逆时针旋转螺母，打印平台下降
打印平台下降，喷嘴与平台之间的间距变大

Print	Preheat	Tools

Filament	Level	Home	Manual
Setting	Status	About	

7. 在触摸屏上点击[Tools]，然后点击[Home]，打印机开始回零，等待回零完成，点击[Yes]。点击返回按键返回主界面。

8. 取来一张A4纸，将其放入喷嘴与打印平台之间。一手调节调平螺母一手来回滑动A4纸来感受摩擦力。

① 若纸张可以轻松抽动则表示喷嘴与平台间距过大，需要顺时针旋转下方的调平螺母来缩小平台与喷嘴的间距。

② 若抽动纸张时阻力较大，表示喷嘴与平台的间距过小，需要逆时针旋转下方的调平螺母来增大平台与喷嘴的间距。

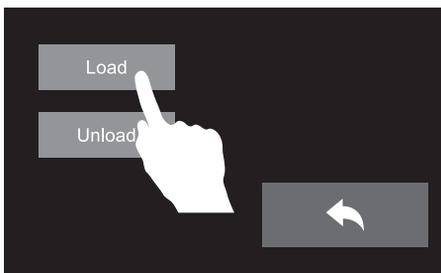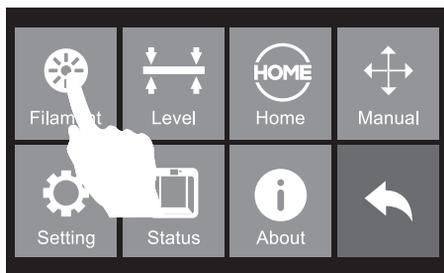③ 若抽动纸张时感到有轻微的摩擦感，表明此时喷嘴与平台的间距比较合适，可以停止调节。将喷头手动移动到第二个调平点上方。采用同样的方法对该点进行调节。以此类推，当四个调平点都调平完成后（四个调平螺母上方），调平完成。
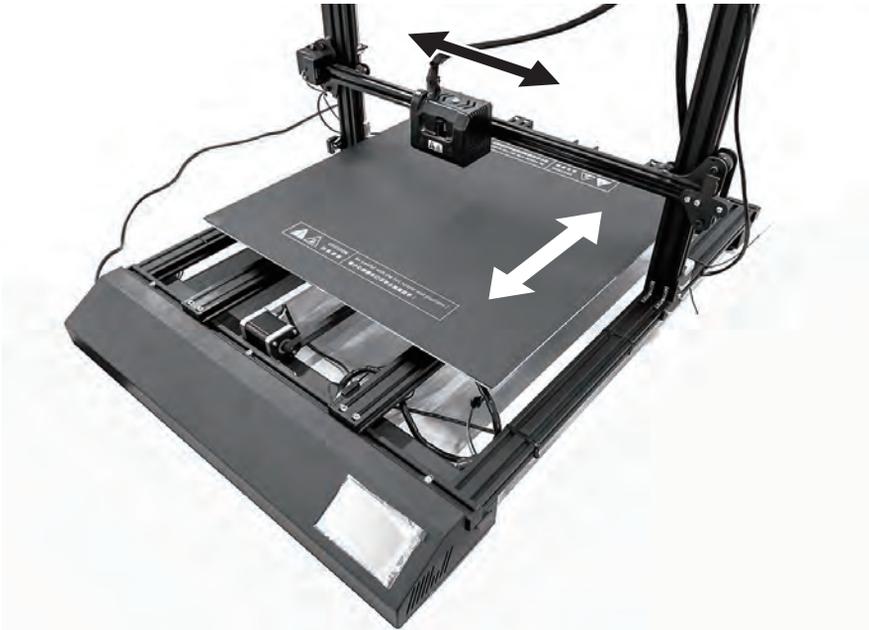
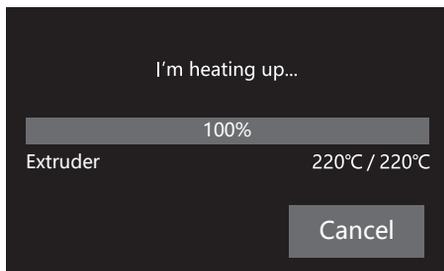Thro系列打印机的喷头可以左右滑动，打印平台可以前后滑动。请通过手动滑动喷头和打印平台将喷头调整到调平螺母的上方。
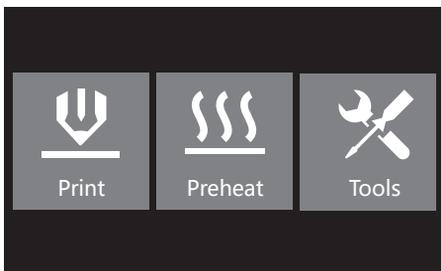
1. 按住压板将耗材从喷头进丝口垂直插入喷头底部。

2. 点击[Tools]。

3. 点击[Filament]

4. 选择[load]。

I'm heating up...

100%

Extruder   220℃ / 220℃

Cancel

5. 喷头预热到目标温度后，开始进丝，直至耗材均匀出丝为止。点击返回按键，回到主界面。
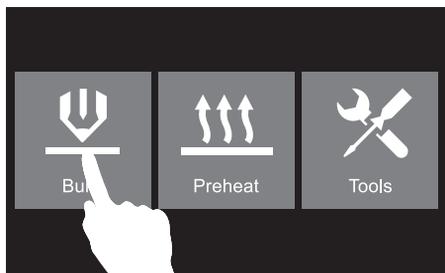
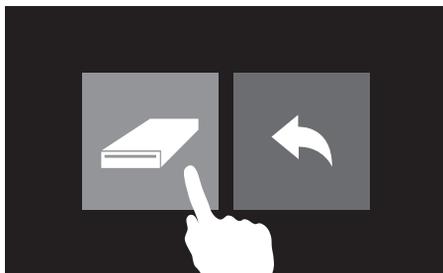注意：若长时间喷头未出丝，请检查填装耗材时是否正确将耗材插入喷头底部。

首 次 打 印

打印建议

1. 打印开始前请确保打印机已经过调平；
2. 打印开始前请确保耗材安装正确，没有打结或卡住；
3. 喷头内可能残留少量耗材，请进丝一段时间，确保上一次打印的耗材已全部挤出；
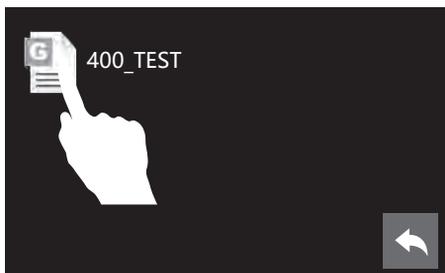4. 打印开始前请将喷头耗材清理干净；
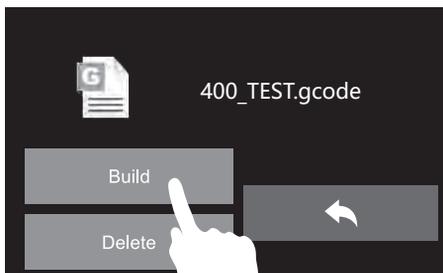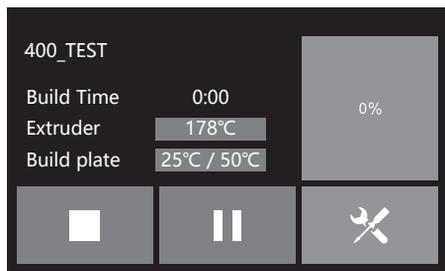5. 不可以在长时间无人看守的情况下使用3D打印机；

1. 将存储卡插入设备卡槽内。

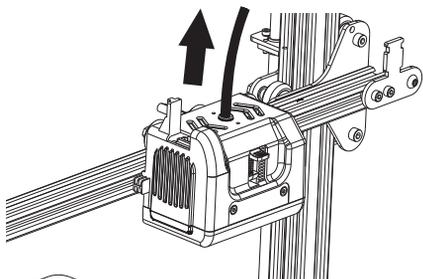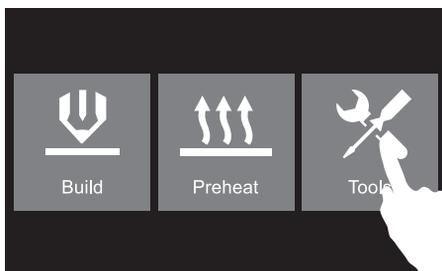2. 在首界面点击[Build]。

3. 点击储存卡。

4. 选择需要打印的文件

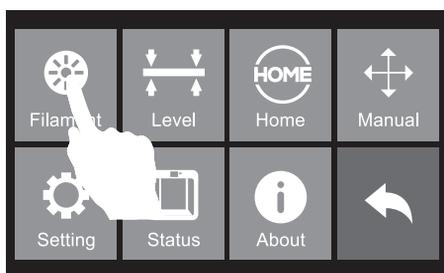5. 点击[Build]。
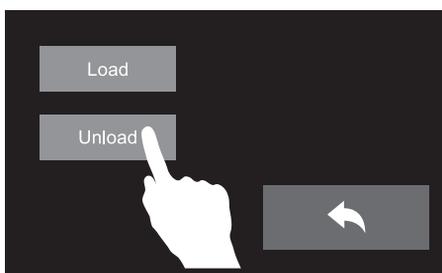

6. 喷头开始加热，加热完成后开始打印。

退丝操作 在日常使用中，如果需要更换耗材，请按下列步骤操作。
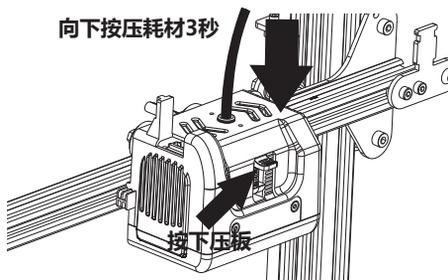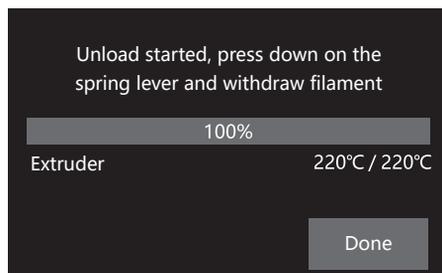

1. 将导丝管从喷头进丝口拔出，露出10厘米耗材，以便于拔出耗材。

Build   Preheat   Tools

2. 在触摸屏上点击[Tools]。

Filament   Level   Home   Manual

Setting   Status   About

3. 点击[Filament]。

Load

Unload

4. 点击[Unload]。

I'm heating up...

100%

Extruder   220℃ / 220℃

Unload started, press down on the spring lever and withdraw filament

100%

Extruder   220℃ / 220℃

Done

向下按压耗材3秒

按下压板
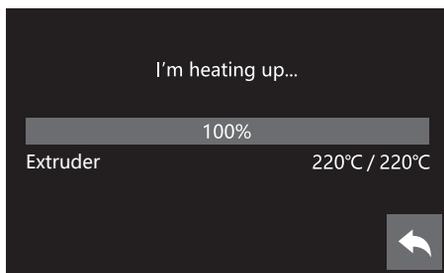
5. 喷头开始加热。当喷头加热到预定温度后，按下喷头侧边的压板，同时向下按压耗材3秒，直到看到耗材从喷嘴处被挤出后快速拔出丝料。

调平配件不属于随机标配配件，如有需要请联系设备销售商购买。

1. 取出调平配件。

2. 如图所示，旋出感应器顶部的一个螺母和一个垫片。

3. 将感应器穿过固定座。

4. 装回垫片后再装回螺母。
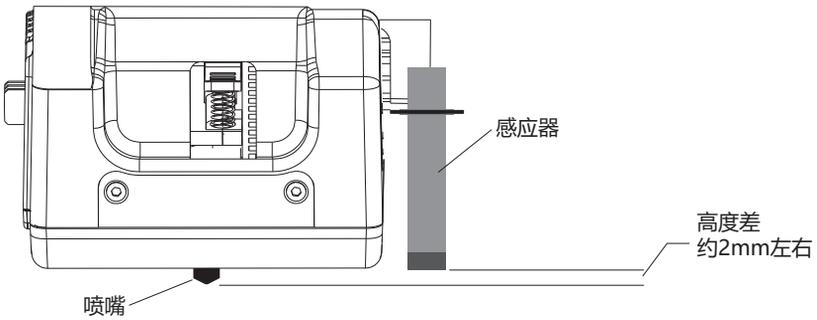

5. 将固定座放置于喷头右侧，用两颗螺丝固定。

6. 将感应器的插头于打印机液晶屏后部的传感器线相连。

7. 由于感应器线过长，请将感应器线卡入顶部丝盘固定座上的滑轮卡扣中。

感应器

高度差
约2mm左右

喷嘴

8. 安装完成后，请比对喷嘴与感应器下端的高低。感应器应当高于喷嘴1~2毫米。可以通过调节
   感应器上的螺母来调节感应器的高低。

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